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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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C. IRVIN MCCLELLAND  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

HAVAN, THU THAO

ART UNIT PAPER NUMBER

3624

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/931,404

Applicant(s)

BURNS ET AL.

Examiner

Thu Thao Havan

Art Unit

3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/4/02; 7/18/02</u> . | 6) <input type="checkbox"/> Other: _____  |

### **Detailed Action**

#### ***Drawings***

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because fonts are too small and they are difficult to read especially for figure 1. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

#### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth below:

whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. Mere ideas in the abstract (i.e. abstract idea, law of nature, natural phenomena) that do not apply, involve, or use fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, or use to produce a useful, concrete, and tangible result. A mere intended or nominal use of a component does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process.

In addition, Claim 1, as a whole, is nonstatutory because it merely recites steps in the abstract for use in structuring a mortgage futures contract without producing any useful, concrete, and tangible result. For example, the steps of "identifying a set of mortgage-backed securities (MBS) coupons..."; "identifying the total MBS production..., and eliminating from said set of MBS coupons..."; "calculating a coupon price..."; "calculating a par-adjusted average coupon price..."; "selecting a subset...of said set of MBS coupons...", and "assigning a numerical weight to each of said coupons..." are mere

steps in the abstract without setting forth a practical application for producing any useful, concrete, and tangible result. (See Interim Guidelines, IV (C)(1, 2)).

Furthermore, claim 1, as a whole, simply prescribes a process that purely manipulates numbers i.e. a mathematical algorithm based on abstract concepts or ideas without presenting any useful, concrete, and tangible result. Benson, 409 U.S. at 71-72, 175 USPQ at 676. (See also Interim Guidelines, Annex V).

Claims 2-8, which depend on claim 1 also fail the test above.

Claims 9-12 are nonstatutory for the same reasons as stated in claims 1-8 above.

Claim 13 recites patent eligible computer program product [See Interim Guidelines, Annex IV, (a)], however, when taken as a whole merely manipulates numbers i.e. mathematical algorithm based on abstract concepts or ideas without presenting any useful, concrete, and tangible result. Hence, claim 13 is nonstatutory. Benson, 409 U.S. at 71-72, 175 USPQ at 676. (See Interim Guidelines, Annex V).

Claim 14 is nonstatutory for the same reasons as stated in claim 13 above.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **1-5** and **13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel (US 6,070,151) in view of background of Galperin et al. (US 6,185,543).

Re claim **1**, Frankel teaches a method of structuring a current mortgage price indicator (CMPI) mortgage futures contract (col. 1, line 63 to col. 3, line 13; col. 18, lines 30-67; abstract), comprising the steps of:

identifying a set of mortgage-backed securities (MBS) coupons issued by a plurality of agencies for a pre-determined prior time period (col. 5, lines 18-32; Frankel discloses mortgage-backed securities system);

calculating a coupon price for each of said set of MBS coupons issued by said plurality of agencies (figs. 9-10; Frankel displays a graphical illustration of the coupon formula for a multi-segment variable rate security);

calculating a par-adjusted average coupon price (AACP) for said set of MBS coupons issued by said plurality of agencies (col. 3, lines 40-64);

selecting a subset containing N of said set of MBS coupons that is closest to said AACP (col. 7, line 1 to col. 8, line 20);

assigning a numerical weight to each of said N coupons in said subset (col. 14, line 55 to col. 15, line 6; Frankel discloses the weighted average of the coupon rates); and

including in the CMPI mortgage futures contract each of said N coupons in said subset and their corresponding numerical weights (col. 18, lines 30-67; col. 14, line 55 to col. 15, line 6; Frankel discloses new securities to be collateralized by the future cashflows).

However, Frankel does not explicitly teach identifying the total MBS production of said plurality of agencies during said pre-determined prior time period, and eliminating from said set of MBS coupons any coupon which does not represent more than a pre-determined level of the total MBS production during said pre-determined prior time period. On the other hand, Galperin specifically discloses identifying the total MBS production of said plurality of agencies during said pre-determined prior time period, and eliminating from said set of MBS coupons any coupon which does not represent more than a pre-determined level of the total MBS production during said pre-determined prior time period when he discloses prepayment historical data arrayed in time series according to the step of rating agencies (col. 6, lines 40-60; col. 4, line 60 to col. 5, line 17; figs. 1, 3, and 6). For example, only those customers who can be shown to score favorably for prepayment behavior might receive a solicitation for a mortgage product A. Thus, it would have been obvious to one of ordinary skill in the art to identifying the total MBS production of said plurality of agencies during said pre-determined prior time period, and eliminating from said set of MBS coupons any coupon which does not represent more than a pre-determined level of the total MBS production during said pre-determined prior time period when analyzing mortgage-backed securities for a company as discloses in Galperin to disclose it's financial performance.

Re claim 2, Frankel teaches CMPI mortgage futures contract is traded on an exchange (fig. 2). In figure 2, Frankel discloses trade exchange such as in the bullish/bearish market.

Re claim 3, Frankel teaches predetermined prior time period is three months and said set of MBS coupons are from MBS backed by conventional 30-year mortgages (col. 1, lines 20-25). Frankel discloses paid off period of 30 years as conventional mortgage.

Re claim 4, Frankel teaches pre-determined level of total MBS production of said plurality of agencies, during said pre-determined prior time period, is five percent (col. 2, lines 50-62).

Re claim 5, Frankel teaches plurality of agencies consists of Freddie Mac and Fannie Mae (col. 17, line 34 to col. 18, line 6).

Re claim 13, Frankel teaches a method as claimed in claim 1. Therefore the rationale applied in the rejection of claim 1 applies herein. On a further note, Frankel teaches a computer program (col. 5, lines 18-63; fig.1). In figure 1, Frankel discloses a computer system with programs to implement a mortgage-backed securities system.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lange, US 6,321,212

Daughtery, III, US 7,024,384

Kirksey, US 6,460,021



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Thao Havan whose telephone number is (571) 272-8111. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (571) 272-6747. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct-uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Thu Thao Havan  
Art Unit: 3624  
9/20/2006